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Achieving Medical Currency via Selected Staff Integration in Civilian and Veterans Administration Medical Facilities

THOMAS W. HARRELL Colonel, USAF, MC, SFS

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Achieving Medical Currency via Selected Staff Integration in Civilian and Veterans Administration Medical Facilities

Col Thomas W. Harrell, USAF, MC, SFS

During Operations Enduring Freedom (OEF) and Iraqi Freedom, the Air Force Medical Service (AFMS) contributed to the lowest "died of wounds rate" in the history of warfare (less than 10 percent).¹ Cuttingedge medical care on the battlefield and revolutionary methods of transporting critically wounded patients, once miraculous, are now considered routine.² Simultaneously, while fielded medical forces are performing in a heroic manner, garrisoned AFMS providers, particularly surgeons and some medical specialists, are struggling to maintain their required wartime skills. Relying on just-in-time training and brief ingarrison dwell times coupled with multiple deployments, medical service personnel work to sustain skill sets needed for meeting both the active duty force's health needs and the wartime mission.

But when this war is over, how can the AFMS remain medically prepared for the next conflict? This contradiction in preparedness and performance resulted from two decades of changes in AFMS structure as well as the AFMS mission's duality. How did the AFMS get here? How can the system change to sustain skills, provide robust health care to all beneficiaries, and retain the expert staff needed for the mission? The story stretches back two decades, and a resolution may require looking outside the Department of Defense (DOD) to civilian and Veterans Affairs

(VA) medical systems where currency-sustaining cases are more plentiful. Exploring this avenue may allow the restructuring of the current manpower lay down to meet these ends and continue efficient beneficiary care.

Setting the Stage

During the Cold War, the DOD maintained a robust medical service in preparation for casualties associated with Soviet aggression in Europe. Each service sustained significant medical footprints both inside the continental United States (CONUS) and overseas (OCONUS). To keep its aeromedical evacuation (AE) skills honed and maximize the use of its massive capacity, the AFMS utilized a highly developed medical air transport system to move patients to appropriate military treatment facilities (MTF) where they received specialty care if it was unavailable locally. In 1990 the AE system moved around 70,000 patients a year.³

Near the end of the 1980s, the Soviet Union's demise flattened the defense budget.⁴ However, health-care costs in both the civilian sector and the military health system (MHS) began to rise, driving the industry toward managed care. The MHS's rising costs began to take an increasing bite out of defense appropriations—a trend continuing to this day. The MHS budget accounts for \$50 billion of the DOD fiscal year (FY) 2011 appropriations. This is a near quadrupling of the FY 1988 MHS budget (\$14.6 billion), and costs continue to rise at 12 percent/year.⁵

The Soviet Union's collapse also made it attractive for the United States to draw down military power and its budgets. Consequently, the AFMS reduced its footprint worldwide which, coupled with base realignment and closure recommendations, drove the AFMS from 108 MTFs (1983) to 75 MTFs (2010), consisting of four medical centers, 10 hospitals, and 61 clinics.⁶

Adapting to the New Order Has Consequences

To address costs and maintain health care quality and access for DOD beneficiaries, the DOD directed a civilian health and medical program of the uniformed services (CHAMPUS) reform initiative pilot project in 1987 to assess the effectiveness of outsourced health care.⁷ The law mandates health care for DOD personnel and permits space available care for retirees and dependents. 8 The pilot proved successful, and TRICARE was born in the FY 1994 Defense Appropriations Act.⁹ TRICARE shifted eligible beneficiary care (primarily retirees and dependents) to available civilian medical providers in a manner more cost effective than the direct care costs incurred by the MTFs. In some locales, active duty would also be referred to the network if MTF care was not available. TRICARE also allowed the available MTF staff to focus on active duty care and the required medical readiness mission. An obedient retiree population reluctantly adopted this new way of doing business, and dependent care started shifting to the civilian sector. An unintended consequence of creating TRICARE, downsizing the AFMS, and

conducting base realignments was the dramatic reduction in DOD physicians' exposure to complex patients requiring specialty care.

Compared with most Air Force support missions, the AFMS is unique in that it has dual readiness and peacetime missions, which have almost coequal priority due to the powerful incentive of the health care benefit on military recruitment and retention efforts. When the AFMS maintained a robust inpatient capacity and manpower pool, servicing the health care benefit also provided the professional staff with most of their medical currency needs. This currency need was used to justify a large MHS footprint since the medical providers were fulfilling a dual purpose by preparing for war while caring for dependents and retirees, therefore producing a marginal cost savings. With the aforementioned draw downs, this is no longer possible.

In addition to the numerical losses, the medical force mix requirements to meet both the healthcare benefit and the readiness mission pose challenges. The peacetime AFMS mission emphasizes primary care. Primary care needs are best met by a staff heavily weighted in family practitioners, pediatricians, and obstetrician/gynecologists.

This type of health care is delivered chiefly in the ambulatory patient care setting. Primary care providers require access to specialized medical and surgical care to fully provide for their patients, but a large referral population is needed to generate a secondary case load for the consultant surgical and medical specialists to maintain viable skills.

With TRICARE and the outsourcing of patient care into the civilian network, this referral population has dwindled.

The war readiness mission depends heavily on surgical specialties, particularly general and orthopedic surgeons as well as trauma and critical care related specialists. These medical/surgical specialties depend significantly on an inpatient population with complex medical problems. The shift in AFMS structure after the Cold War led to a reduction in both the number of military hospitals and inpatient bed capacity. In 1984 the AFMS inpatient bed capacity was 6,000. In 2006 it drifted below 1,000 and is lower today. The surgical specialties are surgical specialties.

These programmatic shifts pose significant training and currency problems for surgical and medical specialists. The current AFMS patient caseload and complexity mix falls significantly short in several areas of providing the types and volume of cases recommended by medical professional and self-generated AFMS standards to maintain the required staff medical skills sets. The AFMS-assigned medical staff struggles to maintain their respective wartime skills. A large body of literature indicates the volume of experience and exposure to complex cases has a significant impact on the outcomes of surgical and medical care. One study in particular demonstrated a reduction from 60 to 25 percent mortality for patients in shock from penetrating abdominal trauma (predominantly gunshot wounds) when seen in high-volume trauma centers when compared to lower volume facilities.

Additional experience also improves outcomes during subsequent periods of lower patient care volume. As early as 1985, analysis showed that only a few Air Force surgeons were regularly exposed to wartime relevant cases. Peacetime procedure rates were also only a fraction of the rate needed to maintain wartime skills. Wurveys of general surgeons in 1985 showed more than 20 percent of surgeons were not comfortable with a range of combat type procedures such as anastomosis of peripheral vessels, lobectomy of the lung, liver resection, and urinary bladder repair believing they would need to "brush-up" before going to war. Notably, this information was known before the bulk of TRICARE patient shifts and reductions had taken full effect.

More recently in 1995, the Congressional Budget Office concluded the MTF-furnished care during peacetime bore little resemblance to the care required by wartime. Most military physicians had limited opportunities for wartime mission preparation. ¹⁹ To illustrate this, a comparison of the current prevalent medical and surgical diagnoses and procedures between in-garrison MTFs and OEF are listed in figure 1.

Medical & Surgical Diagnoses/Procedures in-garrison vs. OEF

In-Garrison

- Hypertension
- Hyperlipidemia
- Child-birth
- Inguinal hernia repair
- ACL/meniscal repair

OEF

- Massive transfusion
- · Penetrating Trauma
- Amputation
- Vascular injury
- Burns
- Shock

Figure 1. Medical and surgical diagnoses/procedures in-garrison vs. OEF (*Adapted from* Joint Theater Trauma System, August 2010, and Air Force Medical Operations Agency, Medical Services Directorate, May 2010).

There is little similarity between the in-garrison MTF and OEF case loads. The striking difference is exactly why alternative avenues to sustain relevant medical and surgical currency are needed. Presently, Air Force surgeons and physicians are spending considerable time in theater operating on a large volume of patients. This wartime exposure sustains their skills while rotating back to lower volume in-garrison care. When this higher paced wartime exposure subsides, mechanisms are needed to continue providing adequate exposure to complex caseloads that are currently lacking in most MTFs.

The Challenge

Notwithstanding the currency difficulties, the readiness mission requires specialized physicians, particularly surgeons and medical

subspecialists and their support staff, be maintained to face war as well as humanitarian missions. How can the AFMS maintain both the appropriate numbers and skill sets of this medical staff within a system that currently cannot support the required currency needs? Although the last two years have seen great strides with enhanced surgical currency by optimizing operating room efficiencies, increasing patient throughput, and bringing more complex cases into selected MTFs, the required clinical volumes remain lacking as seen in figure 2.

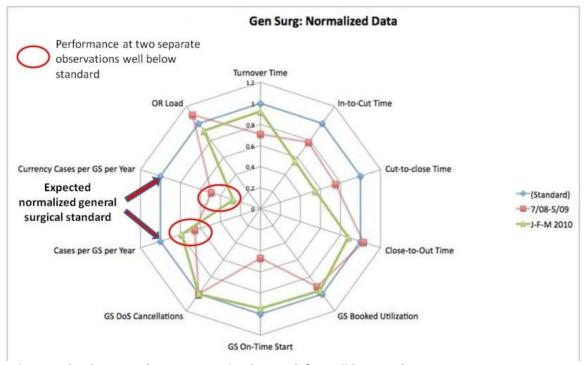


Figure 2. General surgeon (*Adapted from* "Operating Room Assessment and Process Improvement Project: Phase 1 of the Surgical Services Continuous Improvement Project" [briefing to AF/SG, Washington DC, 24 August 2010]).

This single AFMS MTF example suggests the number of cases required for physician currency is severely below the recognized standard. Despite optimization efforts, no self-sufficient AFMS surgical program currently meets the need. AFMS medical center surgical and medical specialists are faring better than their colleagues at smaller MTFs, but they often moonlight in civilian medical institutions near their MTF to increase their complex case exposure. It is probable when these military physicians rotate to smaller regional hospitals for a two to three year rotation, their skill sets diminish, and if not rotated back to a higher volume facility, a vicious spiral of skill diminution can begin.

To help manage this issue, the AFMS requires surgeons and medical specialists to attend predeployment "just-in-time training" at a center for sustainment of trauma and readiness skills location in Baltimore, St. Louis, or Cincinnati. It provides a two to three week immersion in wartime skill sets. Another avenue, the sustainment of trauma and resuscitation skills program (STARS-P), provides short rotations in civilian trauma centers or high-volume hospitals near an MTF. The current STARS-Ps are at the following locations: San Antonio Military Medical Center, Texas; Nellis AFB, Nevada; Wright-Patterson AFB, Ohio; Travis AFB, California; and Luke AFB, Arizona. The first four serve also as AFMS medical centers. The AFMS surgical consultant also secured the ability to waive time-on-station requirements for selected surgical and medical specialists to allow their relocation back to a larger

MTF after as little as two years when they have been assigned at a low volume, low acuity hospital setting.²¹

A Concept and Recommendations

Although improving operating room efficiencies, providing just-intime training, and setting up intermittent rotations are all positive steps in shoring up the needed medical skill sets, a more durable solution needs consideration. Medical currency needs could be maintained by integrating segments of the health profession staff into existing large volume civilian and VA medical facilities through a deliberate, multi-year rotational plan that expands the Center for Sustainment of Trauma and Readiness Skills (C-STARS)/STARS-P concepts. Physicians would enter a cycle of rotating into a civilian center, then moving back to the AFMS at a higher volume location before finally shifting to a smaller facility. The integration of doctors, nurses, and technicians into this cycle is desirable, but existing professional certification requirements, labor union concerns, and scope of practice differences involving the nursing and technician fields make it easier to focus only on the physicians first.

This model would not jeopardize the AFMS health care benefit as currently envisioned. In locations where robust civilian network care exists, beneficiaries would receive care from civilian providers as they do now. Integration into civilian and VA medical centers for currency could also provide an avenue for realignment of select primary care and specialty services at underserved CONUS locations where the civilian

care network is sparse and OCONUS installations where host-nation health care can prove problematic due to language, standard of care, and cultural differences. Finally, opportunities provided by this integration model would decrease the dissatisfaction of many current AFMS providers as it relates to their inability to consistently employ the procedures for which they were trained and are expected to deliver to the battle wounded. This would likely lead to higher physician job satisfaction, retention, and recruitment. Although this integration concept might be new for the American MHS, it isn't without successful precedent.

A Proven Integration Model

In the 1990s, the United Kingdom (UK) integrated its MHS into its civilian health care system. ²² The UK's decision was made in an environment similar to the current US MHS—rising health care costs and redundancies between the services' medical branches and the civilian community. Prior to 1994, the British Defence Medical Service maintained a network of hospitals and outpatient clinics analogous to the US MHS. Today, they continue to employ a few primary care focused—mostly aviation medicine related—outpatient MTFs, but their specialized medical officers practice full time in civilian hospitals or as part of imbedded Ministry of Defence (MoD) hospital units (MDHU) until required for deployed military duty. ²³ Military inpatients are treated in

the civilian sector or in one of six MDHUs located within civilian facilities as opposed to maintaining stand alone hospitals.²⁴

For over 10 years, this stable construct has undergone favorable annual reviews as directed by the MoD and British law. It is suggested that the combined military/civilian system has reduced the MoD's health care budget by cutting operations and facilities maintenance costs as the MoD no longer maintains large facilities with mostly empty wards. Also, medical treatment capabilities are not duplicated as a result of individual service desires but are instead apportioned based on actual demand in MDHUs, which can also be used to treat civilian patients when the military beneficiary patient census drops. The Royal Medical Service (RMS) medical specialist officers (surgeons, anesthetists, and medical subspecialists) enjoy a practice that produces reliable patient volume, complexity, and acuity since they function within civilian centers and treat both military and civilian patients. In this way, even if the military beneficiary demand decreases, they still regularly apply their skill sets. The civilian centers benefit because they avoid paying the RMS medical officer's salary. As for medical liability, it is a far simpler issue in the UK as compared to the United States in that there is nationalized health care in the form of the National Health Service (NHS). Physician credentialing is also simplified by the presence of a single, national licensing and accrediting body, the General Medical Council (GMC). Both these issues would be more complex to negotiate within the United States, but

solutions are possible, albeit a full discussion is outside the scope of this paper. However, utilizing the VA system as an initial integration site may prove a workable first step and smooth the way forward while not directly addressing these two issues.

Hurdles—Systems Issues

Like the British, the US MHS is reluctant to move toward enterprise-wide civilian integration. To this point, individual MTFs engage in mutually beneficial relationships based mainly on the local leadership team's strength and vision but have often seen good working agreements fall by the wayside with the inevitable staff rotation. The hesitancy to move toward an integrated system is understandable as the US MHS must contend with several challenges that were either not factors in the UK or were easier to overcome.

The most obvious impediment to integration is the lack of a national unified health care system. The existence of a UK federalized health care system made the integration far easier. The NHS regulatory practices are similar to the MoD; all physicians practicing in the MoD are required to meet national professional standards and licensure established by the NHS and the overarching regulatory body, the GMC.²⁵ Within the United States, though national professional organizations such as the American College of Surgeons and the American College of Cardiology exist, their established standards are nonbinding. Instead, each state maintains a board of medical examiners, which establishes

that state's medical practice criteria. Even though there are significant similarities between the states' boards, licensure reciprocity similar to driver's licenses is nonexistent. The mobility of military physicians has been accommodated by allowing portability of a medical license as long as care is delivered in a military facility.²⁶

Hurdles—Liability

Medical malpractice also presents a formidable challenge. In the UK, all liability fall under the NHS and the GMC regardless of the practice venue. Thus MoD physicians are covered regardless of where they deliver their care.²⁷ Within the United States, the responsibility for liability coverage rests with the individual practitioner or the facility where the medical practice occurs. Military physicians receive their liability protection from the federal government and are afforded protection under the Feres Doctrine, arising from the Federal Tort Claims Act (FTCA). The FTCA makes the United States liable for injuries caused by the negligent or wrongful act or omission of any federal employee acting within the scope of his/her employment, in accordance with state law where the act or omission occurred.²⁸ In case law stemming from Feres v. United States, 340 US 135 (1950), the Supreme Court and lower courts have held that suit cannot be brought against military medical personnel due to the federal nature of the relationship between the government and military personnel, and the Veterans' Benefits Act compensation scheme, which substitutes for tort liability, a statutory "no fault" compensation scheme providing generous pensions to injured servicemen without regard to any negligence attributable to the government.²⁹

If a US military physician practiced on behalf of the MHS in a civilian facility on civilian patients, this indemnification would no longer exist. The remedy would be to construct agreements that account for this circumstance. Another more immediate solution would be to pursue currency patient care within the VA medical centers. The US MHS relationship with VA medical centers is analogous with the MoD and the NHS in several respects. If suit was brought against an Air Force physician, the VA would work the case along with the US attorney's general office as opposed to the Air Force judge advocate general.³⁰ The AFMS will also have to determine which specialties are best suited for integration and which medical services could undergo reorganization to make integration feasible, effective, and efficient.

Hurdles—Defining the Need

Integrating AFMS physicians into the civilian or VA health care system would provide a sustainable avenue for wartime skill set maintenance. The first step is identifying the specialties of greatest need whose requisite procedural numbers cannot be obtained. Using existing battle injury data, the greatest demand in the surgical arena is for orthopedic and general surgeons. More highly specialized neurosurgeons and vascular surgeons are also required, but this cohort group's size is

measured in single digits, and as a result, their currency training is easier to achieve in existing large MTFs and other mechanisms.

Conversely, general surgeons perform a wide scope of damage control and trauma related surgery, and as a result, it is critical they be exposed to a larger case volume of sufficient complexity to keep their skills both honed and diversified. In the AFMS today, as previously noted in figures 1 and 2, these surgeons do not approach the required case levels and in garrison, perform procedures that do little to prepare them for a war.

The same may be said for thoracic, trauma, and orthopedic surgeons. Further, within the medical specialties, critical care trained physicians are also in high demand. The level of in-theater surgical and critical care now equals or exceeds what can be found in US Level I trauma centers. It is now common for wounded warriors to get state-of-the-art polytrauma critical care in theater. Pulmonologists and critical care trained internists also are essential to trauma care. Both medical specialties have suffered from a medical currency perspective as a result of the dwindling inpatient bed capacity and the loss of the retiree population, which often presents for medical care with complex, multiproblem disorders. Consequently, from a demand-driven perspective, these seven surgical and medical specialties represent the best starting place for integration outside the AFMS health care system.

Hurdles—Defining the Force Mix

The next issue is deciding how many civilian/VA positions would be appropriate for rotations outside of MTFs throughout the physician's career cycle while providing the DOD required number of staff to support wartime deployments. Based on the existing deployment posture and anticipated combat and humanitarian mission sets, it is suggested that placing 20 percent of the seven aforementioned specialties into civilian/VA employment for two to three year rotations is reasonable.³¹ Currently, 129 general, thoracic, and trauma trained surgeons serve the AFMS based at 25 Air Force and joint locations. Creating 25 integrated positions through which the surgeons would rotate would maintain currency and provide the required forces. For orthopedic surgeons, including traumatologists, the same calculation would yield 13 positions. Within the medicine specialties, 25 integrated internal medicine and two additional pulmonary/critical care positions would support the concept. These 65 manpower slots could be achieved within the existing end strength requirements and/or by reallocating existing MTF positions. This reallocation will be discussed later.

Solutions—System/Liability

As referenced earlier, the US MHS faces legal and procedural hurdles in developing this integrated model. These were not stumbling blocks for the MoD and UK. If the current move toward medical insurance reform continues, the United States could eventually realize a

nationalized health system. Another possibility is the complete integration of the existing DOD and VA systems. This would consolidate the indemnification process, expand the patient pool for DOD providers, and create a robust manpower platform by combining the civilian and military staffs to simultaneously deliver in garrison care while maintaining a deployment pool.

Regardless of the MHS's and AFMS's future state, integration is desirable. A 2008 RAND study explored the broad feasibility of military medicine to integrate into civilian institutions for the purpose of maintaining currency for its physicians. She found civilian institutions willing to embrace the concept.³²

Solutions—Credentialing

If integration proceeded, physician licensure requirements would need addressing. A US national health system would most certainly increase license portability as it would likely federalize the accountability system. In lieu of a federalized licensing system, state medical boards might increase reciprocity agreements (even for a trial period and at least for the selected specialties) in a manner analogous to the interstate acceptance of a driver's license. This would undoubtedly take some time.

In the proposed system of deliberate rotation for two to three years, the degree of predictability would facilitate applying for and receiving licensure in the appropriate state even though this may take several months. The fees for a medical license range from the low hundreds to

several hundreds of dollars.³³ AFMS or the civilian facility could bear the cost licensure, the latter option being made possible by the revenue generated by the Air Force physician practicing within the facility. In an experimental currency project based out of the RAF Lakenheath,

England MTF, inbound physicians were able to achieve licensure before or shortly after arrival. If this degree of cooperation is achievable with a foreign country's regulatory structure, it seems the same could be achieved within the United States.

Liability for medical practice would be another major sticking point. As previously discussed, a vehicle filling the gap created by a military physician practicing outside the FCTA and Feres doctrine umbrella needs development. In this case, civilian institutions are willing to provide the liability insurance coverage analogous to nonmilitary practitioners. A training affiliation agreement (TAA) can be constructed such that the civilian facility agrees to pay for the indemnification. The University of Pittsburgh Medical Center and the University of Alabama at Birmingham hospital have such a pilot project covering a handful of Air Force physicians. These facilities provided the indemnification contingent upon the Air Force physician's continued good standing. This TAA arrangement is possible due to the financial advantage achieved by the civilian institution since employed physicians generate revenue without also generating a salary cost. One could envision a continuum of liability and salary negotiation providing a cost advantage to both the AFMS and

the civilian institution. A TAA would allow a civilian medical facility to bill for all services provided by the AFMS physician, except in the case of DOD beneficiary treatment in which case all ancillary services would be billable. The physician's fees would be exempted since a DOD physician would be caring for a DOD beneficiary.

Air Force physician credentialing and privileging are nearly identical to their civilian counterparts. All medical training is primary source verified. Previous practice patterns, as well as peer and supervisor evaluations, are reviewed in light of the requested practice capabilities. The civilian facility, just as a military one, would have the ability to refuse employing a military physician who doesn't meet standards. Furthermore, a physician could be dismissed from the medical staff, just as their civilian counterpart, for substandard medical performance or inappropriate conduct.

Solutions—Integration of staff

Since AFMS physicians would provide augmentation of existing civilian staffs free of a payroll burden, civilian facilities would quite readily accept the loss of these physicians in the event of a national emergency requiring their deployment. In fact, the RAND survey report revealed civilian medical facilities were not overly concerned about the risk of deployment, and the impact on staffing though patient apportionment to the DOD staff physicians would have to be addressed

to minimize patient care disruption should a DOD physician be unexpectedly pulled away for military duties.³⁴

Solutions—Restructuring AFMS Manpower/Services

The deliberate two- to three-year rotation of selected specialties outside of the DOD into civilian/VA medical facilities for the maintenance of currency is possible and would likely result in greater skill sustainment compared to the RAND study's suggested program, consisting of shorter rotations and resembling the current STARS-P construct.³⁵ To achieve the required numbers mentioned earlier without increasing end strength, it would be necessary to consolidate surgical and medical specialties in markets that could flourish within the AFMS. This process is already underway with the present surgical optimization program. Within the scope of this current optimization endeavor, market studies were performed indicating the best existing locations, depicted in figure 3, where currency could be captured.

AFMS Currency Platforms

- Lackland/Ft Sam Houston-SAMMC
- Travis
- Eglin
- Wright-Patterson
- Nellis

- Elmendorf
- Langley
- Keesler
- National Capital Region
- Landstuhl
- Lakenheath

Figure 3. AFMC currency platforms (*Adapted from* Air Force Medical Operations Agency/Medical Services Directorate, May 2010).

An enterprise-wide currency solution would require creating billets in the civilian institutions. If not achievable by consolidating and shifting of the specified specialty billets, it is proposed those billets be garnered from a selective reduction of MTF services in markets with robust network services. In those locations, MTF functions could be reduced to offer only Air Force specific skill sets not available in the civilian community such as flight medicine, public health, and occupational health related functions. This kind of market may be found at Dover AFB, Delaware; Hanscom AFB, Massachusetts; Hickam AFB, Hawaii; and Little Rock AFB, Arkansas where a robust local network exists for pediatric, obstetrics/gynecology and selected non-Air Force mission essential services. The manpower authorizations gained in these selected

locations could be utilized to create the estimated 65 positions needed to maintain currency across the most critical skills sets. More careful study would be required, but medical force rebalancing could provide the integration positions and maintain or bolster required AFMS support at locations where network care is nonexistent or too distant, such as Holloman AFB, New Mexico or in overseas locations where the ability to achieve host nation care is hampered by language barriers, or is not in keeping with the standard of care expected by US beneficiaries.

Solutions—Impact on Recruitment/Retention

In addition to increased proficiency, there may be a significant positive impact in another area: morale and retention. In AFMS surveys on physicians leaving the service conducted in 2009 and 2010, professional satisfaction ranked second only to administrative burdens and staffing concerns as the reason most influencing a decision to leave military medicine. The lack of professional satisfaction was closely linked to the limitations on the scope of practice. Though the survey results were not statistically significant, they do contend that the physician's inability to practice their full range of procedures and maintain their critical skill sets is a huge retention disincentive. It is this same lack of the scope of practice that adversely impacts the surgeons' maintenance of their wartime readiness that provides reason to explore alternatives to the existing system. Integration into the civilian/VA health

care system will provide a pool of physicians immediately capable of sustaining their battlefield medicine skill set.

Conclusion

The AFMS has always provided excellent health care to its beneficiaries in garrison. The health benefit remains one of the strongest attractants to military service in addition to the patriotism of the allvolunteer force. However, the 1990's peace dividend and the resultant AFMS restructuring placed the AFMS in a precarious position for sustainment of wartime skills. AFMS personnel have produced phenomenal results in caring for the wounded, but the consummately skilled staff we have currently is a fortunate but unintended outcome of our sustained high deployment rates. With diminished exposure to appropriate case volume and complexity in garrison, the staff has sustained this excellent performance almost by accident. The rapid rotational schedules with short in garrison dwell times have kept them operating at the front. We need to create a system that is self-sustaining without relying on a wartime pace. We need to fill the in garrison time with a more meaningful practice that provides predictable war skills training. Deliberate integration into existing civilian and/or VA systems featuring robust trauma and complex case loads would provide the needed predictable training opportunity. The potential hurdles of licensure, liability, credentialing, and privileging are all surmountable,

and even now, pilot TAAs have been generated to explore prospects for success.

A deliberate two- to three-year rotation would greatly sustain and enhance existing skill sets and rebuild those reduced by rotations to smaller facilities where AFMS care must be maintained to support the beneficiary population. A rotation from high volume civilian/VA medical facilities back to viable AFMS platforms would distribute skills to more junior staff and act as a positive motivation toward retention. The AFMS's readiness depends on capable staff. They need to be positioned where they can achieve this status and, at the same time, continue their exceptional service to the beneficiary population.

Notes

- 1. Lt Gen Bruce Green, "Air Force Medical Service, Rebuilding Our Surgical Capabilities," (address, Society of Air Force Clinical Surgeons, Biloxi, MS, 2010), slide 9.
- 2. Lt Gen Bruce Green, "Testimony before the House Appropriations Committee, Subcommittee of Defense," 111th Cong., 2nd sess., 2010, 6–7.
- 3. Mark Diamond, "Global Security Military News," *Global Security*, 25 August 2003,

http://www.globalsecurity.org/military/library/news/2003/08/mil-030825-amc02.htm (accessed 28 January 2011), 1.

- 4. Executive Secretary for the Secretary of Defense, "Annual Report 1995," February 1995,
 http://www.dod.mil/execsec/adr95/budget_5.html (accessed 6
 December 2010), 1.
- 5. Robert F. Hale (under secretary of defense [comptroller] and chief financial officer), interview by author, Maxwell AFB, Alabama (31 August 2010); Congressional Budget Office (CBO), "A CBO Study: Growth of Medical Spending by the Department of Defense," CBO, September 2003, http://www.cbo.gov/ftpdocs/45xx/doc4520/09-09-DoDMedical.pdf (accessed 6 October 2010), 1; and Don J. Jansen, "Military Medical Care: Questions and Answers," *Federation of American Scientists*, 14 May 2009, http://www.fas.org/sgp/crs/misc/RL33537.pdf (accessed 6 October 2010), 0, 4–5.
- 6. Susan D. Hosek, Joan L. Buchanan, and George A. Goldberg, Reconciling Air Force Physicians' Peacetime and Wartime Capabilities:

 Demonstration of a Workforce Design Methodology, Office of the Secretary of Defense Analysis, National Defense Research Institute, and RAND Health, RAND Report R-3202-AF (Santa Monica, CA: RAND, August 1985), 1; and Air Force (AF)/Surgeon General (SG) Commanders Action Group, "U.S. Air Force Medical Service Snapshot," AF/SG, Washington DC, 2010, 1.

- 7. Robert F. Hale, "Champus Reform Initiative," CBO, 12 March 1987, http://www.cbo.gov/ftpdocs/94xx/doc9405/87doc80.pdf (accessed 18 January 2011), 2.
- 8. Congress of the United States, "Cornell University Law School
 U.S. Code 10 1074," 1 February 2010,
 http://www.law.cornell.edu/uscode/uscode10/usc_sec_10_00001074---000-.html (accessed 28 January 2011).
- 9. National Defense Authorization Act for Fiscal Year 1994, 103rd Cong., 1st sess., 5 January 1993, http://thomas.loc.gov/cgibin/query/F?c103:1:./temp/~c1039aWTI4:e447553: (accessed 6 December 2010); and Lt Col Brian King, "Task Force on the Future of Military Healthcare" (briefing, secretary of defense, subcommittee of the defense health board, Washington, DC, 2007), 1.
- 10. William M. Hix and Susan Hosek, *Elements of Change in Military Medical Force Structure: A White Paper*, OSD Analysis (Santa Monica, CA: RAND, 1992), iv; and King, "Task Force on the Future of Military Healthcare," 2.
 - 11. Hix and Hosek, Elements of Change, vi-vii.
 - 12. Ibid.
- 13. Lt Gen George Taylor, "Your AFMS: On the Right Flight Path" (briefing, 2006 Tricare Conference, Washington, DC, 2006), slide 62.
- 14. M. M. Chowdhury, H. Dagash, and A. Pierro, "Systematic Review of Impact of Volume of Surgery and Specialization on Patient

Outcome," *British Journal of Surgery* 94, no. 2 (2007): 145–61; W. G. Henderson et al., "Comparison of Risk-Adjusted 30-Day Postoperative Mortality and Morbidity in Department of Veterans Affairs Hospitals and Selected University Medical Centers: General Surgical Operations in Men," *Journal American College Surgeons* 204, no. 6 (June 2007): 1,103–14; and Ethan A. Halm, Clara Lee, and Mark R. Chassin, "Is Volume Related to Outcome in Health Care? A Systematic Review and Methodolgical Critique of the Literature," *Annals of Internal Medicine* 137, no. 6 (September 2002).

15. Avery B. Nathans et al., "Relationship between Trauma Center Volume and Outcomes," *Journal of the American Medical Association*, 7 March 2001, http://jama.ama-assn.org/content/285/9/1164.full.pdf+html (accessed 28 January 2011), 1,167.

16. Hosek, Buchanan, and Goldberg, *Reconciling Air Force Physicians' Peacetime*, 58–61.

17.Ibid., 57.

18. Ibid., 7–10.

19. CBO, Restructuring Military Medical Care, Report to the House Committee on National Security (Washington, DC: CBO, 1995), xi.

20. AF/SG, Air Force Expeditionary Medical Skills Institute, 13 September 2010,

http://airforcemedicine.afms.mil/idc/groups/public/documents/webco

ntent/knowledgejunction.hcst?functionalarea=CSustainmentTARS&doct ype=subpage&docname=CTB_035119 (accessed 13 September 2010).

- 21. Lt Col Alan Murdock, Air Force medical service surgical consultant, San Antonio, Texas, interview by the author, 22 November 2010.
- 22. House of Commons, "Defence Seventh Report Session 2007–2008," 18 February 2008,

http://www.publications.parliament.uk/pa/cm200708/cmselect/cmdfe nce/327/32704.htm#a3 (accessed 17 November 2010), 2.

23. Royal Air Force Britain, "Royal Air Force Medical Officer," December 2009,

http://www.raf.mod.uk/careers/rafcms/mediafiles/70A687C4_5056_A3 18_A808EE691A4ED800.pdf (accessed 3 October 2010), 13.

24. Healthcare Commission, "Defence Medical Services: A Review of Clinical Governance of the Defence Medical Services of the UK and Overseas," NHS, UK, March 2009,

http://www.nhs.uk/NHSEngland/Militaryhealthcare/Documents/Defence_Medical_Services_review%5B1%5D.pdf (accessed 6 December 2010), 6.

25. Ministry of Defence, "Ministry of Defence Special Recruitment," 28 January 2011,

http://www.mod.uk/DefenceInternet/DefenceFor/Jobseekers/CivilianC areers/SpecialistRecruitment.htm (accessed 28 January 2011).

- 26. Congress of the United States, "Cornell University Law School."
- 27. General Medical Council, "Licensing," 28 January 2011, http://www.gmc-uk.org/doctors/licensing.asp (accessed 28 January 2011); and House of Commons, "Use of Overseas Doctors in Providing Out-of-Hours Services," para 6, 28 January 2011, http://www.publications.parliament.uk/pa/cm200910/cmselect/cmhea
- 28. Henry Cohen and Venessa K. Burrows, "CRS Report for Congress 95-717," *Federation of American Scientists*, 11 December 2007, http://www.fas.org/sgp/crs/misc/95-717.pdf (accessed 17 November 2010), 1.
 - 29. Ibid., 4–9, 12–16.
- 30. Hildegarde Conte Perlstein, attorney, interview by the author, 30 November 2010.
 - 31. Murdock interview, 22 November 2010.

lth/441/441we06.htm (accessed 28 January 2011).

- 32. Christine Eibner, "Maintaining Military Medical Skills during Peacetime Outlining and Assessing a New Approach," RAND, 2008, http://www.rand.org/pubs/monographs/2007/RAND_MG638.pdf (accessed 15 September 2010), x.
- 33. Federation of State Medical Boards, "Federation Credentials Verification Service," 12 December 2010, http://www.fsmb.org/fcvs_state_specific_req.html (accessed 12 December 2010).

- 34. Eibner, "Maintaining Military Medical Skills," xi.
- 35. Ibid., 5.
- 36. Erwin Gines, Air Force Medical Corps exit interview, AF/SG1M, Air Force Medical Service, 2010.